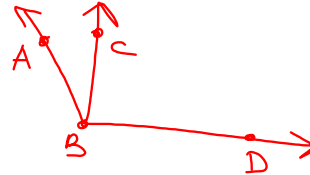


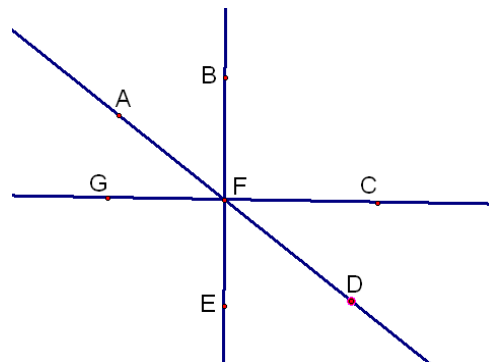
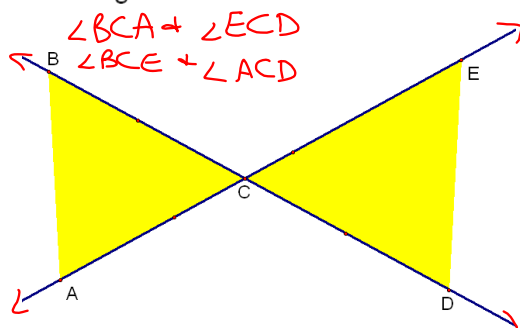
## 1.5 Describe Angle Pair Relationships

Adjacent angles—2  $\angle$ s that lie in the same plane, have a common vertex, and a common side, but no common interior points

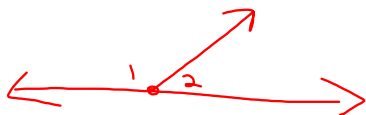


$\angle ABC + \angle CBD$  are adjacent  $\angle$ s  
 $\angle ABC + \angle ABD$  are NOT adjacent

Vertical angles—2 nonadjacent  $\angle$ s formed by intersecting lines



Linear pair—a pair of adjacent  $\angle$ s whose non-common sides are opposite rays

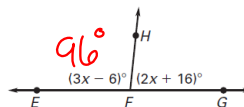


$\angle 1 + \angle 2$  are a linear pair

Complementary angles—2  $\angle$ s whose measures have a sum of  $90^\circ$

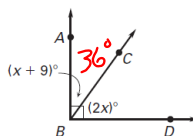
Supplementary angles—2  $\angle$ s whose measures have a sum of  $180^\circ$

Find  $m\angle EFH$ .



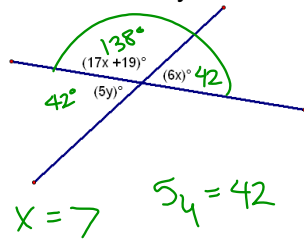
$$\begin{aligned} 3x - 6 + 2x + 16 &= 180 \\ 5x &= 170 \\ x &= 34 \end{aligned}$$

Find  $m\angle ABC$ .



$$\begin{aligned} 3x + 9 &= 90 \\ x &= 27 \end{aligned}$$

Solve for x and y.



Example 1

An angle is  $6^\circ$  less than twice its complement.

Find the angles.

$$x + y = 90$$

$$x = 2y - 6$$

$$2y - 6 + y = 90$$

$$y = 32^\circ$$

$$x = 58^\circ$$

Example 2

An angle is  $44^\circ$  more than its supplement. Find the angles.

$$x + y = 180$$

$$x = y + 44$$

$$68^\circ \quad 112^\circ$$

Example 3 Two angles are complementary.

An angle is 17 times as large as the other. Find the angles.

Hw  
p38-40  
#s3-9, 12, 13, 18, 19,  
20-28, 31,32